Remarks

Claims 1-7 and 16-20 are pending in this action. Claims 8-15 are cancelled for the purposes of the present application due to the Examiner's restriction requirement. Claims 1, 4 and 20 are amended to correct a couple of typographical and grammatical errors.

Claim Objections

Applicants have deleted the cut and paste error that appears in claim 20. Therefore, the Examiner's objection to that claim is believed overcome.

Claim Rejections – 35 USC § 102

Claims 1-5 and 16-20 stand rejected under 35 USC § 102(e) as being anticipated by Houge et al., US Patent No. 6,651,226 ("Houge"). The Applicants respectfully disagree with the Examiner's rejection.

Houge is simply, as the title indicates, a metrology system to measure features on wafers in process and correlate them with expected results. (See the Abstract) In finding that Houge teaches all the elements of Applicants' invention, the Examiner generally refers to a small section of Houge. That section uses facially different terminology and undertakes different steps that what is claimed by Applicants (and in fact produces a vastly different outcome). For example, there is no mention of a "design" or "shape configuration data" in the reference section. There is no mention or teaching of a "design checker" or "coding the shape configuration data so it can be recognizable to a design checker." Finally, there is no mention or teaching of "using the design checker to identify target matches . . . present in the design."

The Examiner provides no explanation how or why these elements/steps do not appear in Houge. The reason is that the Examiner really can't. Houge is directed toward

doing critical dimension analysis on a wafer. Houge is not working to find sensitive areas on a design.

Similarly, Houge does not mention "design data" (claim 2), does not mention a "design checker" (claim 3 and 5), or converting "target matches" (claim 4 and 5).

As the Examiner points out claims 16-20 have the same restrictions as their counterparts in claims 1-5 the same arguments apply to those claims.

Since the Examiner has failed to show that the elements and or steps in Applicants' claims are taught by Houge, claims 1-5 and 16-20 are patentable over Houge.

Claim Rejections – 35 USC § 103

Claims 6-7 stand rejected under 35 USC § 103(a) as being unpatentable over Houge in view of Malhotra, Patent Application Publication No. 20030061583 ("Malhotra"). Applicants respectfully disagree with the Examiner's rejection.

Malhotra is simply a design rule checking tool much like the ones Applicants refer to as a component of their invention. Malhotra does not make up for the inadequacies mentioned above with regards to Houge relative to the §102(b) rejection. Nor did Applicants find in Figure 10 the mention of the production of "images" as claimed by Applicants. A close of examination of Figure 10 in paragraphs 74 and 75 of the publication shows that Figure 10 is simply a "physical representation of DRC system." And the database stores shape information. There is no teaching of "producing [and transferring] images of locations," present in the steps recited in claims 6 and 7.

For both reasons that Houge fails to teach even the independent claims upon which Applicants invention depends and because Malhotra doesn't address the restrictions in claims 6-7, the Examiner's rejection under 35 USC § 103(a) must fail, and claims 6 and 7 are patentable over the references cited.

Claims 1-2 and 16-17 also stand rejected under 35 USC § 103(a) as being unpatentable over Maeda et al., US Patent No. 4,791,586 ("Maeda"), in view of DeCamp et al., US Patent No. 6,063,132 ("DeCamp")in view of McKay, US Patent No. 6,418,551 ("McKay"). Applicants respectfully disagree with the Examiner's rejection.

Maeda is cited for the proposition that it is either scanning for "shape configuration data" or loading into such "shape configuration data" into a database. The Examiner cites an introductory paragraph to the summary of the invention for this proposition. It turns out upon further reading Maeda is comparing "multi-level" signals of patterns on a physical chip to determine whether or not the levels are being properly aligned. (See column 3, lines 12-21.) Thus, Maeda is restricted in terms of what it teaches to something that is occurring after manufacturing of a device, and the data is clearly not "shape configuration data."

DeCamp is cited for the proposition that it teaches coding the shape configuration data so that it is recognizable by a design checker. What DeCamp teaches is method of verifying a runset (a set of design rules) using a group of layout structures or shapes to determine the correctness of the runset. This is vastly different from the invention taught by Applicants which is looking for a way to locate "process sensitive sites in a design." Yes, DeCamp in Figure 1, obviously needs to do what is broadly described as "coding" to achieve this result. However, it is coding of information (DRC rules, testcases and error conditions) for a vastly different purpose and certainly does not teach the step of coding configuration data from process sensitive sites as claimed by Applicants.

McKay is cited for the proposition that it teaches using a design checker to identify target matches where such target matches are identified in a design. McKay does not work to identify **process sensitive sites** in a design. Instead McKay is a layout router tool which use of the design rule checker is more akin to a traditional use of a design rule checker; that is, to check whether or not the design rules are being violated by the design. The referenced section of McKay cited by the examiners takes those areas of the design where a potential design rule violation has occurred and see if that corresponds to an area where such violation has been **waived.** Applicants' invention on the other hand is looking for areas of a design which still may lead to process problems irrespective of whether or not it has passed DRC checking. And the purpose of the identification is to possibly redesign that target match not waive it. So even though McKay uses a "matching technique" it clearly teaches away from Applicants' claimed invention. This same argument applies to both claims 1 and 2.

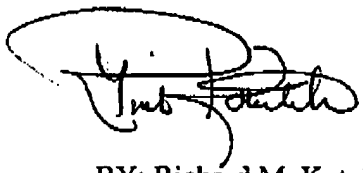
Per the Examiner's rejection the arguments above also apply to claims 16-17.

In addition, to the fact that none of the three references teach the rejected claims, the Examiner has combined three non-analogous references (a metrology tool, a runset verification system, and a layout tool) in the effort to reject these claims. In fact there is nothing in any of the references that suggest that they can be used to catalog and identify process sensitive sites in a design.

SUMMARY AND CONCLUSION

In view of the foregoing, withdrawal of the rejections and the allowance of the current pending claims is respectfully requested. If the Examiner feels that the pending claims could be allowed with minor changes, the Examiner is invited to telephone the undersigned to discuss an Examiner's Amendment.

Respectfully submitted,



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BY: Richard M. Kotulak
Attorney for the Applicants
Registration No.: 27,712
Telephone: 802-769-4457